

Payment will be made under:

Item No. 700	Permanent grassing	Per pound (kilogram)
Item No. 700	Agricultural lime	Per ton (megagram)
Item No. 700	Fertilizer mixed grade	Per ton (megagram)
Item No. 700	Fertilizer nitrogen content	Per pound (kilogram)
Item No. 700	Sod	Per square yard (meter)

#### **700.5.01 Adjustments**

General Provisions 101 through 150.

## **Section 701—Wildflower Seeding**

### **701.1 General Description**

This work includes preparing the ground, furnishing and planting wildflower and companion grass seeds, applying fertilizer, and applying lime, if necessary, to areas designated on the Plans.

#### **701.1.01 Definitions**

General Provisions 101 through 150.

#### **701.1.02 Related References**

##### **A. Standard Specifications**

Section 882—Lime

Section 890—Seed and Sod

Section 891—Fertilizers

##### **B. Referenced Documents**

General Provisions 101 through 150.

#### **701.1.03 Submittals**

General Provisions 101 through 150.

### **701.2 Materials**

#### **A. General**

Use materials that meet the requirements of the following Specifications:

<b>Material</b>	<b>Specification</b>
Agricultural Lime	882.2.01
Companion Grass Seed	890.2.01
Fertilizers	891.2.01

#### **B. Wildflower Seed**

Use seed from the latest season's crop.

Use seed that meets the minimum germination rates listed in the Wildflower Seeding Table with 98 percent seed purity and 0.5 percent weed seed. Proportion seed mixture according to the Wildflower Seeding Table.

### Wildflower Seeding Table

Approx. % by Weight	Botanical Name	Common Name	% Germination
1.5	Achillea millefolium	White Yarrow	50
5.0	Centaurea cyanus	Cornflower	60
5.0	Chamecrista fasciculata	Partridge Pea	N/A
10.0	Coreopsis lanceolata	Lance-leaved Coreopsis	40
10.0	Coreopsis tinctoria	Plains Coreopsis	65
5.0	Delphinium ajacis	Rocket Larkspur	60
5.0	Escholzia californica	California Poppy	60
5.0	Gaillardia aristata	Perennial Gaillardia	45
10.0	Gaillardia pulchella	Annual Gaillardia	45
2.5	Monarda citriodora	Lemon Mint	40
10.0	Nemophila menziesii	Baby Blue Eyes	70
1.0	Oenothera speciosa	Pink Primrose	N/A
2.0	Papaver rhoeas	Corn Poppy	60
10.0	Rubus hirta	Black-Eyed Susan	60
5.0	Salvia farinacea	Blue Sage	40
3.0	Solidago spp.	Goldenrod	N/A
10.0	Trifolium incarnatum	Crimson Clover	80
100% total mixplant at a rate of 12 lbs/acre (13 kg/ha)			

#### C. Companion Grass

Apply nurse or companion grass as follows:

Planting Season	Grass	Rate per Acre (Hectare)
October 1 to February 28	Tall Fescue	5 lbs (5.5 kg)

#### D. Fertilizer Mixed Grade

Select fertilizer mixed grade such as 10-10-10, 6-12-12, 5-10-15, or any other analysis within the following limits:

- Nitrogen 5 to 10 percent, phosphorus 10 to 15 percent, and potassium 10 to 15 percent

#### 701.2.01 Storage, Delivery, and Handling

Use seed delivered in original sealed packages bearing the producer's guaranteed analysis for percentages of species mixture, minimum germination rates, and purity of seed.

### 701.3 Construction Requirements

#### 701.3.01 Personnel

General Provisions 101 through 150.

#### 701.3.02 Equipment

Use approved mechanical seed drills, drop spreaders, and rotary spreaders to distribute seed.

#### 701.3.03 Preparation

##### A. Planting Limits

Before preparing the ground, stake planting limits according to the Plans and as approved by the Engineer.

**701.3.04 Fabrication**

General Provisions 101 through 150.

**701.3.05 Construction****A. Ground Preparation**

Prepare the ground as follows:

1. Plow between 4 in to 6 in (100 mm to 150 mm) deep.
2. After plowing, thoroughly disk the area until pulverized, then smooth the surface.
3. Remove large clods, boulders, stumps, rocks, and other foreign particles that will interfere with the work and seedling growth.
4. Wait 2 weeks after preparation, then spray new growth with 1 gal per acre (9 L per hectare) of Roundup™ herbicide.
5. Wait at least 10 days before proceeding.

**B. Application of Lime and Fertilizer Mixed Grade**

Apply lime and fertilizer as follows:

1. Lime  
Uniformly spread agricultural lime on the ground at the approximate rate determined by the Engineer. If the pH is 6.0 or higher, no lime is required.
2. Fertilizer Mixed Grade  
Spread the fertilizer, mixed according to Subsection 701.2.D, uniformly over the ground at approximately 200 lbs/acre (225 kg/ha).
3. Mixing  
Before doing further work on the area, blend the lime and fertilizer uniformly into the top 4 in (100 mm) of soil using harrows, rotary tillers, and other equipment approved by the Engineer.

**C. Seeding**

Weather permitting, sow seed within 24 hours of applying the fertilizer and lime to the seed bed as follows:

1. Sow seed uniformly according to the rate specified in Subsection 701.2.B. Use approved mechanical seed drills or mix seed with dry sand and spread it with either a drop spreader or rotary spreader.
2. Cover the seed to no more than 1/8 in (3 mm) deep.
3. After seeding, roll the area with a cultipacker or similar equipment to ensure good soil contact for seedling germination.

**D. Mulching**

After rolling the seed bed, apply 1 ton per acre (2 Mg per hectare) of wood fiber mulch.

**701.3.06 Quality Acceptance****A. Replanting**

The Engineer may require replanting an area that shows unsatisfactory growth.

Except as otherwise specified by the Engineer, prepare replanting areas the same as the initial planting with the following exception:

- Use a soil test or the Engineer's guidance to determine the fertilizer type and application rate, then furnish and apply the fertilizer.

**B. Providing Growth and Coverage**

Ensure that wildflower growth and coverage conforms with the intent of the Contract for the vegetation, except for seed not expected to germinate and show growth at that time.

Ensure that vegetation shows a satisfactory visible growth with no bare spots larger than 1 ft<sup>2</sup> (0.1 m<sup>2</sup>). Bare spots shall be infrequent, comprising no more than 1 percent of a given area.

### **701.3.07 Contractor Warranty and Maintenance**

#### **A. Plant Establishment**

Preserve, protect, water, reseed or replant, and perform other work as necessary to keep the wildflower areas in satisfactory condition.

#### **B. Watering**

Keep planted areas moist for 4 to 6 weeks during seedling germination and development.

Following initial growth, water the wildflower areas enough to promote maximum growth.

#### **C. Mowing**

Mow once a year in late fall after seedheads have matured. Avoid damaging desirable vegetation.

### **701.4 Measurement**

#### **A. Wildflower Seeding**

The number of acres (hectares) completed according to the above requirements and accepted by the Engineer is measured for payment.

#### **B. Wood Fiber Mulch**

Mulch furnished and applied is not measured separately.

#### **C. Water**

Water furnished and applied to promote a satisfactory growth is not measured for payment.

#### **D. Agricultural Lime**

Lime is measured by the ton (megagram).

#### **E. Mixed Grade Fertilizer**

Fertilizer is measured by the pound (kilogram).

#### **701.4.01 Limits**

Work required under Subsection 701.3.06 and Subsection 701.3.07 is not measured for payment.

### **701.5 Payment**

Wildflower seeded areas will be paid for as follows:

#### **A. Wildflower Seeding**

When plants are satisfactorily planted, 80 percent of the Contract Unit Price bid per acre (hectare) will be paid on the next estimate.

Until Final Acceptance, perform required maintenance according to Subsection 701.3.07 when necessary or as ordered by the Engineer.

At Final Acceptance, the remaining 20 percent will be paid. Payment is full compensation for preparing ground, providing wildflower and companion grass seed, applying seed, watering, mulching, and establishing plants.

#### **B. Mixed Grade Fertilizer**

Fertilizer will be paid for at the Contract Price per pound (kilogram). Payment is full compensation for furnishing and applying the material.

#### **C. Lime**

Lime will be paid for at the Contract Price per ton (megagram). Payment is full compensation for furnishing and applying the material.

Payment will be made under:

Item No. 701	Wildflower seeding	Per acre (hectare)
Item No. 701	Fertilizer mixed grade	Per pound (kilogram)
Item No. 701	Agricultural lime	Per ton (megagram)

### 701.5.01 Adjustments

General Provisions 101 through 150.

## **Section 702—Vine, Shrub, and Tree Planting**

### 702.1 General Description

This work includes furnishing and planting vines, shrubs, trees and plants, as well as treating regenerated areas according to the Specifications, Plans, and the Engineer.

#### 702.1.01 Definitions

General Provisions 101 through 150.

#### 702.1.02 Related References

##### A. Standard Specifications

Section 108—Prosecution and Progress

Section 700—Grassing

Section 882—Lime

Section 891—Fertilizers

Section 893—Miscellaneous Planting Materials

##### B. Referenced Documents

Standardized Plant Names

#### 702.1.03 Submittals

##### A. Certificates of Inspection

Submit certificates of inspection with the invoice for each shipment of plants as required by law for transportation.

File certificates with the Engineer before the material is accepted. Plants may be rejected at the site regardless of Federal or State government inspections at the place of growth.

##### B. Substitutions

When both primary and alternate plants are specified, use the alternate only after providing written proof that the primary plants specified are not available. In this case a Supplemental Agreement is not required to use the alternate plants.

When a primary or an alternate plant cannot be furnished, provide the Engineer written proof that neither is available. A Supplemental Agreement is required for substitute plants in this case.

### 702.2 Materials

Ensure that materials meet the requirements of the following Specifications:

Material	Section
Water	700.2.B
Agricultural Lime	882.2.01
Fertilizers	891.2.01